

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/809,524

DATE: 03/30/2001

TIME: 15:07:40

Input Set : A:\6114N.txt

Output Set: N:\CRF3\03302001\I809524.raw

ENTERED

7 <110> APPLICANT: Pharmacia & Upjohn Company
11 <120> TITLE OF INVENTION: Salmonella Vaccine Materials and Methods
17 <130> FILE REFERENCE: 28341/6114.N
C--> 23 <140> CURRENT APPLICATION NUMBER: US/09/809,524
C--> 26 <141> CURRENT FILING DATE: 2001-03-15
29 <150> PRIOR APPLICATION NUMBER: 60/190,178
32 <151> PRIOR FILING DATE: 2000-03-17
37 <160> NUMBER OF SEQ ID NOS: 30
43 <170> SOFTWARE: PatentIn Ver. 2.0
49 <210> SEQ ID NO: 1
52 <211> LENGTH: 779
55 <212> TYPE: DNA
58 <213> ORGANISM: Salmonella dublin
64 <400> SEQUENCE: 1
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70 agcctttctt tattacttcc cctattaaaa agtggcagtt taggggcccgc tcttttacgt 120
73 aatggcgtgc ttatgtcact tacctttccc atattaccaa tcatttacca gcagaagatt 180
76 atgatgcata ttggtaaaga ttacagttgg ttagggttag tcaccggaga ggtgattatt 240
79 ggttttttaa ttgggttttg tgcggcggtt cccttttggg ccgttgatat ggcgggggtt 300
82 ctgcttgata ctttacgtgg cgcgacaatg ggtacgatat tcaattctac aatagaagct 360
85 gaaacctcac tttttggctt gcttttcagc cagtttttgt gtgttatttt cttataagc 420
88 ggcggcatgg agtttatatt aaacattctg tatgagtcac atcaatattt accaccagg 480
91 cgtactttat tatttgaccg gcaattttta aaatatatcc aggcagagtg gagaacgctt 540
94 tatcaattat gtgtcagttt ctctcttccct gccataatat gtatggtatt agccgatctg 600
97 gcttttaggtc ttttaaatcg gtgcgcacaa caattgaatg tgtttttctt ctcaatgccg 660
100 ctcaaaagta tattggttct actgacgctc ctgatctcat tcccttatgc tcttcacac 720
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112 <211> LENGTH: 779
115 <212> TYPE: DNA
118 <213> ORGANISM: Salmonella typhimurium
124 <400> SEQUENCE: 2
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130 agcctttctt tattacttcc cttattaaaa agtggcagtt taggggcccgc acttttacgt 120
133 aatggcgtgc ttatgtcact tacctttccg atattaccaa tcatttacca gcagaagatt 180
136 atgatgcata ttggtaaaga ttacagttgg ttagggttag tcaactggaga ggtgattatt 240
139 ggtttttcaa ttgggttttg tgcggcggtt cccttttggg ccgttgatat ggcgggggtt 300
142 ctgcttgata ctttacgtgg cgcgacaatg ggtacgatat tcaattctac aatagaagct 360
145 gaaacctcac tttttggctt gcttttcagc cagtttttgt gtgttatttt cttataagc 420
148 ggcggcatgg agtttatatt aaacattctg tatgagtcac atcaatattt accaccagg 480
151 cgtactttat tatttgacca gcaattttta aaatatatcc aggcagagtg gagaacgctt 540
154 tatcaattat gtatcagctt ctctcttccct gccataatat gtatggtatt agccgatctg 600
157 gcttttaggtc ttttaaatcg gtgcgcacaa caattgaatg tgtttttctt ctcaatgccg 660
160 ctcaaaagta tattggttct actgacgctc ctgatctcat tcccttatgc tcttcacac 720
163 tatttggttg aaagcgataa attttatatt tatctaaaag actggtttcc atctgtatg 779
169 <210> SEQ ID NO: 3
172 <211> LENGTH: 749

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175 <212> TYPE: DNA
178 <213> ORGANISM: Salmonella dublin
184 <400> SEQUENCE: 3
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190 gtggatcttt atcgtctcatt gccagaggat gaggcgaatc aaatgctggc attacttatg 120
193 cagcatcata ttgatgcgga aaaaaaacag gaagaggacg gtgttacctt acgtgtcgag 180
196 cagtcgcagt ttattaatgc ggttgagcta cttagactta acggttatcc gcatcgtcag 240
199 ttacaacgg cggataagat gtttcgggct aatcagttag tggtatcacc ccaggaagaa 300
202 cagcagaaga ttaatttttt aaaagaacaa agaattgaag gagtgctgag tcagatggag 360
205 ggcgtgatta atgcaaaagt gaccattgcg ctaccgactt atgatgaggg aagtaacgct 420
208 tctccgagct cagttgccgt atttataaaa tattcaccac aggtcaatat ggaggccttt 480
211 cgggtaaaaa ttaaggattt aatagagatg tcaatccctg ggttgcaata cagtaagatt 540
214 agtatcttga tgcagcctgc tgaattcaga atggtagctg acgtaccgcg gagacaaaca 600
217 ttctggatta tggacgttat caacgccaat aaaggggaagg tggagaagtg gttgatgaaa 660
220 tacccttata agttgatgtt attgttgaca ggactgttat taggagtggg catcctgata 720
223 ggctattttt gcctgagacg ccgtttttg 749
229 <210> SEQ ID NO: 4
232 <211> LENGTH: 749
235 <212> TYPE: DNA
238 <213> ORGANISM: Salmonella typhimurium
244 <400> SEQUENCE: 4
247 atgaaggttc atcgtatagt atttcttact gtccttacgt tctttcttac ggcattgtgat 60
250 gtggatcttt atcgtctcatt gccagaagat gaagcgaatc aaatgctggc attacttatg 120
253 cagcatcata ttgatgcgga aaaaaaacag gaagaggatg gtgtaacctt acgtgtcgag 180
256 cagtcgcagt ttattaatgc ggttgagcta cttagactta acggttatcc gcataggcag 240
259 ttacaacgg cggataagat gtttcgggct aatcagttag tggtatcacc ccaggaagaa 300
262 cagcagaaga ttaatttttt aaaagaacaa agaattgaag gaatgctgag tcagatggag 360
265 ggcgtgatta atgcaaaagt gaccattgcg ctaccgactt atgatgaggg aagtaacgct 420
268 tctccgagct cagttgccgt atttataaaa tattcacctc aggtcaatat ggaggccttt 480
271 cgggtaaaaa ttaagattt aatagagatg tcaatccctg ggttgcaata cagtaagatt 540
274 agtatcttga tgcagcctgc tgaattcaga atggtagctg acgtaccgcg gagacaaaca 600
277 ttctggatta tggacgttat caacgccaat aaaggggaagg tggagaagtg gttgatgaaa 660
280 tacccttata cggtgatgtt atcgttgaca ggactgttat taggagtggg catcctgata 720
283 ggctattttt gcctgagacg ccgtttttg 749
289 <210> SEQ ID NO: 5
292 <211> LENGTH: 1052
295 <212> TYPE: DNA
298 <213> ORGANISM: Salmonella dublin
304 <400> SEQUENCE: 5
307 atggtagtaa ataaacgttt aatcttaatt ttactattta tactcaatac agcaaagagt 60
310 gatgagttat catggaaagg taatgacttc accctttatg ccagacaaat gccattagca 120
313 gaggttttac atctgctctc agagaactat gatacggcta ttactattag ccatttgata 180
316 acagctacat ttagtggaaa aattccgcct ggaccaccg tcatattttt gaataacctg 240
319 gcagcacaat atgatttgc taccctggtt gatggcagca tgttatatgt atatcctgca 300
322 tcgttattaa aacatcagg taccctttc aatattttat ctactggacg gttcattcat 360
325 tacttaacga gccagaatat cctttcatca ccgggatgcg aggttaaaga aattaccggt 420
328 accaaagctg tggaggtgag cgggtgtccc agctgcctga ctcgtattag tcaattagct 480
331 tcagtgtctg ataatgcgtt aatcaaacga aaagacagt cggtgagtgt aagtatatac 540
334 acgcttaagt atgccactgc gatggatacc caataccaat atcgcgatca gtccgtcgtg 600

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337 gttccagggg tcgtgagtgt attgctgag atgagtaaaa ccagcgtacc ggcgtcatcg 660
340 acgaacaatg gttcaccgcg tacacaggca ttgcccatgt ttgctgccga cccacgccag 720
343aatgcagtga tcgttcgtga ttatgcggcc aatatggccg ggtatcggaa acttatcaca 780
346gaattagatc aacgccagca gatgatagag atttcggtga aaattatcga tgtaaatgct 840
349ggagatatta accagttagg catcgactgg ggaacggcag tgcgctggg tggcaagaaa 900
352attgcgttca atacagggtt gaatgacggt ggtgctagcg gttttttcaa cggtaatcag 960
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364 <210> SEQ ID NO: 6

367 <211> LENGTH: 1052

370 <212> TYPE: DNA

373 <213> ORGANISM: Salmonella typhimurium

379 <400> SEQUENCE: 6

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385 gatgagttat catggaaagg taatgacttc accctttatg ccagacaaat gccattagca 120
388 gaggttttac atctgctctc agagaactat gatacggcta ttactattag cccattgata 180
391 acagctacat ttagtgga aaattccgct ggaccaccgg tcgatatatt gaataacctg 240
394 gcagcacaat atgatttgct tacctgggtt gatggcagca tgttatatgt atatcctgca 300
397 tcgttattaa aacatcaggt tatcactttc aatattttat ctactggacg gttcattcat 360
400 tacttacgca gccagaatat cctttcatca ccgggatgag aggttaaaga aattaccggt 420
403 accaaagctg tggaggtgag cgggtgtccc agctgcctga ctcgattag tcaattagct 480
406 tcagtgcctg ataatgcgtt aatcaaacga aaagacagtg cggtgagtgt aagtatatac 540
409 acgcttaagt atgccactgc gatggatacc cagtaccaat atcgcgatca gtccgtcgtg 600
412 gttccagggg tcgttagtgt attgctgag atgagtaaaa ccagcgtccc gacgtcatcg 660
415 acgaacaatg gttcaccgcg tacacaggca ttgcccatgt ttgctgccga cccacgccag 720
418aatgcagtga tcgttcgtga ttatgcggcc aatatggccg ggtatcggaa actcatcaca 780
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424ggagatatta accagttagg catcgactgg ggaacggcag tgcgctggg tggcaagaaa 900
427attgcgttca atacagggtt gaatgacggt ggtgctagtg gttttttcaa cggtaatcag 960
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439 <210> SEQ ID NO: 7

442 <211> LENGTH: 368

445 <212> TYPE: DNA

448 <213> ORGANISM: Salmonella typhimurium

454 <400> SEQUENCE: 7

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457 atggattggg atctcattac tgaacgtaat attcagcttt ttattcaatt agcaggatta 60
460 gctgaacggc ctttagcaac caatatgttc tggcggcaag gacaatatga aacctatcta 120
463 aactatcata acggtcgtat tcaattatgt cagatactca agcaaaccct cttagacgaa 180
466 gaactgcttt taaagcggt ggctaactgg aaaccgcag cgttccaggg tattcctcaa 240
469 cgattatttt tgttgcgca tgggcttgca atgagttggt ctccacctct ttccagctcc 300
472 gccgagctct ggttacgatt acatcatcga caaataaaat ttctggagtc gcaatgcgtt 360
475 catggtta 368

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478 <210> SEQ ID NO: 8

481 <211> LENGTH: 28

484 <212> TYPE: DNA

487 <213> ORGANISM: Artificial Sequence

493 <220> FEATURE:

496 <223> OTHER INFORMATION: Description of Artificial Sequence: primer

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505 tggcttttat tcgaccattg agcctttc 28
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514 <211> LENGTH: 27
517 <212> TYPE: DNA
520 <213> ORGANISM: Artificial Sequence
526 <220> FEATURE:
529 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
535 <400> SEQUENCE: 9
538 tttatcgctt tcaaccaa at agt gatg 27
544 <210> SEQ ID NO: 10
547 <211> LENGTH: 34
550 <212> TYPE: DNA
553 <213> ORGANISM: Artificial Sequence
559 <220> FEATURE:
562 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
568 <400> SEQUENCE: 10
571 gccaatctag aaattatttt cggaatttga taaa 34
577 <210> SEQ ID NO: 11
580 <211> LENGTH: 49
583 <212> TYPE: DNA
586 <213> ORGANISM: Artificial Sequence
592 <220> FEATURE:
595 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
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613 <211> LENGTH: 49
616 <212> TYPE: DNA
619 <213> ORGANISM: Artificial Sequence
625 <220> FEATURE:
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643 <210> SEQ ID NO: 13
646 <211> LENGTH: 34
649 <212> TYPE: DNA
652 <213> ORGANISM: Artificial Sequence
658 <220> FEATURE:
661 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
667 <400> SEQUENCE: 13
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679 <211> LENGTH: 34
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685 <213> ORGANISM: Artificial Sequence
691 <220> FEATURE:
694 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
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712 <211> LENGTH: 46
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724 <220> FEATURE:
727 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
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745 <211> LENGTH: 46
748 <212> TYPE: DNA
751 <213> ORGANISM: Artificial Sequence
757 <220> FEATURE:
760 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
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778 <211> LENGTH: 35
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790 <220> FEATURE:
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814 <212> TYPE: DNA
817 <213> ORGANISM: Artificial Sequence
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847 <212> TYPE: DNA
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856 <220> FEATURE:
859 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
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877 <211> LENGTH: 42
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883 <213> ORGANISM: Artificial Sequence
889 <220> FEATURE:
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VERIFICATION SUMMARY

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Input Set : A:\6114N.txt

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L:23 M:270 C: Current Application Number differs, Replaced Application Number

L:26 M:271 C: Current Filing Date differs, Replaced Current Filing Date